particle size range of fentanyl produced, as well as other numerical parameters described in the examples, and any combination thereof.

What is claimed is:

**1**. A sublingual formulation comprising from about 0.001% to about 15% by weight fentanyl, a free base, or a pharmaceutically acceptable salt thereof, from about 20% to about 60% by weight ethanol, and from about 4% to about 6% by weight propylene glycol, the formulation providing a mean $T_{max}$ of about 1.28+/−0.60 hours when a dose is administered sublingually to humans.

**2**. A sublingual formulation comprising from about 0.001% to about 15% by weight fentanyl, a free base, or a pharmaceutically acceptable salt thereof, from about 50% to about 60% by weight ethanol, and from about 4% to about 6% by weight propylene glycol, which provides a plasma concentration after administration to humans selected from the group consisting of: about 60% of the mean $C_{max}$ in about 10 minutes, about 86% of the mean $C_{max}$ by about 20 minutes and a combination thereof.

**3**. The sublingual formulation of claim **1**, that when administered to humans provides a plasma concentration that is greater than about 80% of the mean $C_{max}$ for about 2 hours.

**4**. A sublingual spray formulation comprising 400 mcg dose of fentanyl, a free base, or a pharmaceutically acceptable salt thereof, which provides one or more mean pharmacokinetic values selected from the group consisting of: $AUC_{last}$ 4.863+/−1.70821 hr*ng/mL, $AUC_{inf}$ 5.761+/−1.916 hr*ng/mL, and $AUC_{extrap}$ 10.26+/−5.66%, when administered to humans.

**5**. A sublingual spray formulation comprising a dose of fentanyl, a free base, or a pharmaceutically acceptable salt thereof, which provides a substantially dose proportional mean $AUC_{last}$ based on a mean $AUC_{last}$ of about 4.863+/−1.70821 hr*ng/mL for a 400 mcg fentanyl dose when administered to humans.

**6**. A sublingual spray formulation comprising a 400 mcg dose of fentanyl, a free base, or a pharmaceutically acceptable salt thereof, which provides a mean $F(AUC_{last})$ of about 0.721+/−0.199 ng/mL when administered to humans.

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